

Post-Doctoral Research Associate

Appointment: Research Associate, Department of Surgery, University of Cincinnati

Project performance site: Shriners Burns Hospital, Cincinnati, Ohio

Position terms: 1 June 2008 - 28 February 2013; Full time (1.0 FTE);
Salary range: \$45-50,000 per year plus full benefits

Research focus: Cell and tissue engineering of human skin

Duties and responsibilities: An energetic and talented individual will fill a position for performance of preclinical studies with engineered human skin for wound treatment. Two aims are funded to develop skin pigmentation from melanocytes, and a vascular network from microvascular endothelial cells in the engineered skin. Melanocytes and endothelial cells will be selected for expression of integrins and extracellular matrix to promote survival and organization into functional components of skin tissue. Comprehensive laboratories are available which provide facilities for cell culture, biopolymer fabrication, protein and nucleic acid chemistry, light and fluorescence microscopy, flow cytometry, media formulation, and support staff.

Minimum requirements: Ph.D. in cellular, molecular or developmental biology, biomedical engineering, or closely related field. Previous experience with tissue engineering, and cell transplantation preferred. Technical skills needed include: cell culture, protein and nucleic acid analyses (northern, western, & southern blots), transplantation and evaluation *in vivo* of engineered skin, MS Windows computer programs and presentations.

Applicants should provide a Curriculum Vitae, letters of reference, and university transcripts to:

Steven Boyce, Ph.D.
Department of Surgery
University of Cincinnati
o, 513-872-6080
e, steven.boyce@uc.edu

Literature references:

Boyce ST, RJ Kagan, DG Greenhalgh, KP Yakuboff, P Warner, T Palmieri and GD Warden. 2006. Cultured skin substitutes reduce requirements for harvesting of skin autograft for closure of excised, full-thickness burns. *J Trauma* 60(4):821-829.

Swope VB, AP Supp, S Schwenberger, G Babcock, ST Boyce. 2006. Increased expression of integrins and decreased apoptosis correlate with increased melanocyte retention in cultured skin substitutes. *Pigment Cell Res* 19(5):424-433.

Boyce ST. 2004. Fabrication, quality assurance and assessment of cultured skin substitutes for treatment of skin wounds. *Biomed Eng J* 20:107-112.

Boyce ST and GD Warden. 2002. Principles and practices for cutaneous wound repair with cultured cells and biopolymers. *Amer J Surg* 183:445-456.